The Rufford Small Grants Foundation

Final Report

Congratulations on the completion of your project that was supported by The Rufford Small Grants Foundation.

We ask all grant recipients to complete a Final Report Form that helps us to gauge the success of our grant giving. We understand that projects often do not follow the predicted course but knowledge of your experiences is valuable to us and others who may be undertaking similar work. Please be as honest as you can in answering the questions – remember that negative experiences are just as valuable as positive ones if they help others to learn from them.

Please complete the form in English and be as clear and concise as you can. We will ask for further information if required. If you have any other materials produced by the project, particularly a few relevant photographs please send these to us separately.

Please submit your final report to jane@rufford.org.

Thank you for your help.

Josh Cole, Grants Director

Grant Recipient Details	
Your name	Nounagnon Gerard Gouwakinnou
Project title	Assessing ecological status, threat causes and implementation of conservation measures of *Prosopis africana* in W Biosphere Reserve in Benin
RSG reference	8491-1
Reporting period	October 2010 - November 2011
Amount of grant	£5713
Your email address	gougerano@gmail.com
Date of this report	December 2011

1. Please indicate the level of achievement of the project's original objectives and include any relevant comments on factors affecting this.

Objective	Not achieved	Partially achieved	Fully achieved	Comments
Assess the abundance and population structure of *Prosopis africana* comparatively in protected and non protected areas			X	This objective has been fully achieved. The abundance and population status of the species has been investigated in the protected area as well in open area (farmers' field, fallows and hills).
Assess use intensities and subsequent impacts on the species and indigenous conservation techniques			X	This activity has been fully achieved. A total of 160 respondents with 50% of women have been interviewed within five ethnic groups around W National park in Benin.
Environmental education			X	This objective has also been fully achieved. But the session intended for primary school children has been carried out with secondary school children instead.
Tree planting		X		Some trees have been planted as well in school as in farms by some farmers. However, the total number of trees planned to be planted during the project has not been reached. This is firstly because only one college participated in the environmental education instead of three primary schools as planned. Secondly, the number of trees planned to be planted by farmers was far to be reached since all of them did not plant 10 trees as anticipated and other did not take tree planting seriously. Some difficulties also related to the germination of the seeds of *P. africana*.

2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).

The first major difficulty during the project relates to the tree planting objective. Indeed, it has taken some time of sensitisation to convince the farmers of the necessity of planting some trees of *Prosopis africana*. It was so because farmers were not used to planting indigenous plant species. Moreover, since *Prosopis africana* is not a fruit tree species, they did not see it important to plant a tree which does not provide fruit, not shade and they also added that it does not grow fast.

3. Briefly describe the three most important outcomes of your project.

The first important outcome of this project is the actual existence of a database on the use and conservation status of the species around W Biosphere Reserve in Northern Benin. It comes out from our field investigation that the species is best conserved in the protected area than in open areas (non-protected). In the protected area, the species is more abundant in the southern with a wetter climate part than the northern part located in a semi-arid climate. In open areas, the species is very scarce in farmers' field while it can be found on hills which serve as refuge habitat for the species. The field interviews revealed that the species is largely known and used by local people all around the protected area. It is used for medicinal, food, construction and animal rearing purposes. This project is the first attempt to provide such information on the species in Benin.

The second outcome of this project, even not material is the raised awareness of the school people to nature and mainly tree conservation. A total of 33 secondary college pupils has been sensitised and educated on the importance of plant in our daily life and the necessity to wisely use plant resources. The success of this session of education has been perceived through the level of interest these students manifested toward environmental education and they level of participation in the discussions during the education sessions. They even have decided to create a local environment club which will be in charge to educate their fellows and participate in tree planting campaigns. The next step will be how to settle such an environmental club.

The last outcome of the project is the plantation, even few, of some trees of *Prosopis africana*. However, the number of trees planned to be planted was not reached.

4. Briefly describe the involvement of local communities and how they have benefitted from the project (if relevant).

The participation of local communities in this project has been ensured by two main ways.

First, in each of the 8 villages surveyed for the ethnobotanical survey, we always work with a guide or interpreter from that village who financially benefit from this. Also, our field assistants during the population structure assessment were taken from local communities. Therefore, they have benefited not only financially but they have also been initiated to the basic techniques and knowledge of forest inventory such as the utilisation of GPS, clinometers, compass and tree diameter taking with diameter tape.

Moreover, the local community (40 farmers and 33 college pupils) wall also committed in the project through assistance in tree planting and also they have benefited financially and through the present we have given them during environmental education and the most important: the knowledge they have gain on trees and they importance in our life.

5. Are there any plans to continue this work?

Certainly, the farmers involved in this project have promised to continue with the introduction of *P. africana* on their farms during the next rainy season. Moreover, we expect to form an environment club in the college involved in this project. This club will serve as contact group for other environmental education actions.

We then hope to continue the implementation of this work through all the above-mentioned settings and reinforce this by requesting financial support from other conservation granting agencies through their calls to submission.

6. How do you plan to share the results of your work with others?

Beside this synthetic report being sent to RSG, a throughout description of this project is being written in a form of technical report describing the context of the project, the main methods used, the main results of the project and a discussion of these results. This report will be posted on my RSG page after completion.

A summary of this report will be made in French and a copy will be given to local structures in charge of the management of W Biosphere Reserve and also to local administration.

An abstract of the work will be submitted this month (December) for communication at the first IUFRO-FORNESSA (International Union of Forestry Research Organization- Forestry Network for Sub-Saharan Africa) regional congress to be held in Nairobi (Kenya) from 25 – 30 June 2012 on the theme: **Forests and trees serving the people of Africa and the world.**

A scientific publication with a prospective title "Pattern of use and population structure of *Prosopis africana* in the W transfrontier Reserve of Benin, West Africa" will be drawn from the technical report and submitted to *African Journal of Ecology* or to *Economic Botany* by June 2012.
The summary of the results and pictures will also be shared through Facebook.

7. Timescale: Over what period was the RSG used? How does this compare to the anticipated or actual length of the project?

The RSG was used from September 2010 to October 2011. This duration is a bit longer than the anticipated length of the project which was planned to last from October 2010 to October 2011.

However, some other objectives that we did not fully achieve such as planting partly due to difficulty in seed germination and lake of motivation will be continued. Moreover, the dissemination will still be ongoing until the final publication of the journal article we are planning to submit in 2012

8. Budget: Please provide a breakdown of budgeted versus actual expenditure and the reasons for any differences. All figures should be in £ sterling, indicating the local exchange rate used.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Two-way travel to the research field	202	300	98	This difference is due to the fact that we have made more two-way travel to account for some work stoppage period due to the organisation of elections in Benin
Motor bike rental + fuel for local travel	1050	1050	0	
Guide for fieldwork (field assistance and local	812	812	0	

language translation)				
Tree planting by schoolchildren and farmers)	833	448	-385	We have spent less than planned in this activity first because less school participated than planned.
GPS + PC interface cable	203	240	37	We have bought GPS Garmin 76 instead of 70. This is because the first is more accurate, with higher storage capacity and the PC interface cable is USB (simpler than for 70)
Compass- Clinometer Suunto + Cover	135	117	-18	The set is less expensive than foreseen
Diameter tape + 1 digimatic calliper	254	131	-123	The set is less expensive than foreseen
Shipping fees or freight cost	0	133	133	This is the freight cost. We did not budget it before but we had to pay for it since the material we have bought from Forestry Suppliers has been sent to us by Priority Mail International from USA
Farmers sensitisation (return travel)	404	404	0	
Teachers and school kids' sensitisation	546	680	134	Even though the number of participants was reduced, we have spent more days on the field than foreseen and the gift for college pupil was consistent than expected for primary school pupils
Fees for assistance in training and sensitisation	262	266	4	
Internet and mail fee	135	255	120	This difference is due to the fact that we took a dial-up connection from the local postal service for a year to ensure regular internet connection
Telephone	135	135	0	
Ink for printer	134	134	0	
Papers, pen, external hard disk	135	135	0	
Result communication	473	473	0	
TOTAL	**5713**	**5713**	0	

9. Looking ahead, what do you feel are the important next steps?

The important next step is to strengthen what have been acquired through this project. This work is species-specific, and the next step of our investigation will be to evaluate the effect of firewood collection, mainly by women. This activity stands as a very important money-making source for women located at the northern side of the park. This issue has been raised during the workshop with farmers and deserves further investigation since farmers stated that women have now to go farther before have some tree to cut for making firewood. The impact of this activity on vegetation dynamic and land cover in non- protected areas need to be investigated.

10. Did you use the RSGF logo in any materials produced in relation to this project? Did the RSGF receive any publicity during the course of your work?

Obviously, the RSGF logo has been displayed during all our sensitisation events. The logo has been printed and distributed to school children and the objective of the foundation has been explained to all participants to environmental education (famers and schoolchildren). Also, we have talked about this project to many colleagues in our institution and others from developing countries (Uganda, India) met during international conferences who were very interested in the RSGF and its easy and simple grant-making process.

The publicity for RSGF will still continue through the continuation of the dissemination process we have started for this work.

11. Any other comments?

I just want to thank Jane for her warming collaboration. Josh Cole, the Grants Director is also thanked for awarding this grant which allowed us to make the first ecological and ethnobotanical investigation on *Prosopis africana* in Benin.